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The Public Health Journal

OFFICIAL ORGAN

Canadian Public Health Association

Vol. XIII

TORONTO, MAY, 1922

No. 5

SPECIAL ARTICLES

PROBLEMS OF GIRLHOOD AND MOTHERHOOD

DR. EDNA GUEST

STUDY OF INFANT DEATHS IN TORONTO
DURING THE SUMMER OF 1921

DR. A. GRANT FLEMING

SOME PROVINCIAL VITAL STATISTICS

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The Public Health Journal

VOL. XIII.

TORONTO, MAY, 1922

No. 5

Problems of Girlhood and Motherhood

BY DR. EDNA GUEST.

THE interest that is being taken in the present day vital problems of society goes to prove that our country is growing in wisdom as she is growing in beauty. The student who is interested in national leadership and who has an imagination can see that the country which will lead even three generations from now is the country which is studying seriously all social conditions in this generation. She must first study the history of her country—books on law, its progress and influence—books on religion and on science, and books on society following the progress and influence of social laws and customs.

Then having acquainted herself with the history of her people she must study its product—the great human world of men, women and children of to-day. She must observe frankly the happy and the unhappy—those who have acquired beautiful homes and those who poorly clad and poorly fed, live in miserable sunless rooms. She must look on with unprejudiced eye at the radiantly happy mother who has all this world can give and is the idol and ideal of those holding the Victorian view of woman's place in the world—and at the poor unmarried mother who is the scorn of all but those who pause just long enough to see in her that same ray of love which was seen in the Victorian idol—and which characterized the Madonna of two thousand years ago and hypnotized the world. It is the same immortal ray and those who pause to catch it in the so-called "fallen one" cannot but think.

The country which will lead must think honestly. She must study her people and the laws governing them impartially and fearlessly, and through eyes unbiased by custom. She must see whether the laws of the past will develop her people into the finest

Read before the Hamilton Social Hygiene Council, February, 1922.

type or whether they will cripple them until their lives may yet become more distorted than the bound feet of the heathen. Then with the background of history and a thorough knowledge of the present she must fix her gaze in the distance on our personified God—look unflinchingly at that same great ideal which Confucius saw dimly, which the Buddha saw dimly, which Mohammed saw dimly and which Christians have seen dimly—and rubbing any film from her eyes, write with a free and fearless hand the laws which will make for her a people perfect in mind and body—and uncrippled.

Our special interest is in the problems of girlhood and motherhood, and what a fascinating but intricate problem it is. It is absorbing the minds of many of our finest men and women to-day, and they are acting in such a quietly effective way that it is interesting to see the old blockades melt and dissolve away like great mountains of snow in the sunshine. I was very interested when Mrs. Pankhurst told me not long ago that her husband was the original cause of the trouble she gave the dear old world some years ago in the fight for the enfranchisement of women. He was an eminent doctor of law and had been interested in getting certain social reforms through, but was thoroughly baffled in his attempts. Then he conceived a new idea, and that was to equip women to fight these battle so vital to them—and into the heart of his young wife he planted the seed—together they planned, and she started forth, and after his death she carried on and never ceased until she was able to carry the sheaves of the ripened harvest, and lay them as a monument to his memory. Thus man and woman together began one of our most fundamental social reforms, which although lightly said to be "for women," is only "through women" for the world—and thus men and women together are carrying on the great work in an endeavour to make this little world a place where each one of us may do the work for which we are most fitted and be happy—and in the hope that by the construction of this positive social standard all the negatives may silently fade away.

The social problems of girlhood and womanhood confront a sympathetic doctor in a peculiarly direct way. He or she sees, for example, the much talked of declining birth rate, and on the one hand the state crying out for more and more children of our Canadian parents—denouncing with all its might all means of birth control and declaring it to be a murderous means by which the finest type of our civilized race will soon become extinct. And on the other hand the doctor sees the smart young business or professional

girl who, picturing marriage as merely the passing through a phantom veil into bliss, has accepted it as such. Suddenly she finds the veil has plunged her into a new job—and a job with such a diversity of duties looming up at her as she had never dreamed of. Quite true, she had felt in an indefinite way that the phantom veil would admit her to woman's noblest profession—the home and motherhood—but she had thought that by some magic it would bestow on her the mastery of this profession. Never had she dreamed that it meant just an ordinary and continuous round of dish-washing and cooking, sweeping and dusting, ironing and sewing—and, too, if she could cook?—but the hours she seemed to work in order to put one dinner on the table, and then in half an hour it was all eaten up and the dishes loomed up at her again. And it was such a relentless treadmill—three meals a day—seven days of the week—fifty-two weeks of the year, so long as she lived! And such a strange job it was, too, with no pay day—the phantom veil was supposed to remove all thought of this from her and substitute for it a leech-like cleavage to one man. She was just beginning to think it was no wonder the marriage ceremony was kept attractive by surrounding it with mystery, when her whole being seemed suddenly to change—it was the dawn of motherhood. Once again her very soul seemed flooded with expectant joy, and she and her husband planned together as joyously as in their courtship days. Babe arrives and while nurse cares for him, with hands trained for her work, their happiness is complete—he is perfect.

But soon, for economic reasons, nurse must leave, and then our little business girl finds herself again faced with a job for which she has had no training—again she has been depending on magic to train her in motherhood, but sadly she learns that the mere birth of a child does not bring with it the skill necessary in caring for it, and a sudden terrible thought comes to her, 'Is she retrograding?' Before her marriage she had a job which required training and skill, and which was well paid—since her marriage she seemed to be messing about at a job which any girl could get with no training, no skill—and no pay? True, she had thought a good deal about motherhood before her marriage, but it was the "Madonna and Child" effect, not the practical side, and as for having any training in it?—well it seemed to be one of the few professions to which young women were still not freely admitted. So, untrained, she struggles with her new profession, and occasionally is found with her head in her arm wondering if it is all worth while. Is marriage just a trap? No—if she could just have her husband and baby,

with her former work and her former pay, then she would have all that life can give—but, under the present social and economic conditions this is impossible. So with a strong feeling of injustice somewhere, she goes silently on.

She dreams dreams of a possible happy parenthood for all women, but it would require such a complete reconstruction of all the world's present ideas and ideals that she finds it easier and much more respectable to go quietly on as she is—and, to avoid attacking the economic directly for parenthood's sake; she and her husband decide to pursue the easier course and resort to birth control. Here the zealous statesman steps in, as he cries out for more and more children of our Canadian parents and hotly denounces, for his country's sake, the myriads of families limited to one and two children. But why are they limited? The country which will lead must think honestly, and with a fearless hand write the laws which will make for her a people uncrippled.

Another problem—let us look at the young life of Canada and see whether our men and women are making as great a success of parenthood as they are of other professions. I believe the standard of success should be their ability to bring their children to maturity successfully—healthy minded, healthy bodied, and healthy souled individuals of twenty-two to twenty-four, who, having caught the idea of the world in which they are living, are ready to carry on as a unit of it. We who in our social service work see the side-roads of life crowded with young wobbling pedestrians, while the main road has the few young stalwarts, see also that those on the main road have somehow caught the idea of the putting of first things first, while those on the side-roads have never known, or have lost the idea, that there are these first things. Who are these young things on the side-roads? Some are young girls of fourteen, sixteen, twenty or more, who have lost their way before they were able to judge which was the main road—some are almost hopelessly diseased at sixteen, before they have had a chance at life—others are social outcasts because they have, or will soon, become mothers without the legal or religious rite—many even before they knew how motherhood comes about. As we look at these we cannot but feel a sense of terrible injustice somewhere. Surely these young things are more sinned against than sinning. Then who is responsible? At once we turn reproachfully to the mother—and then we catch our breath and hesitate a moment; for there we see a pale faced little woman whose strength is spent by the diversity of her duties. She is cook. She is housemaid. She is nursemaid

and laundress. She is wife and hostess. She is the bearer of children and—trying to be the mother of children all at once—no hired girl could be paid to do the first half of her duties. Then we wonder are women failing in the profession of motherhood? Or is it all economic? Surely successful parents must have time and energy to form ideals for their children—parenthood means far more than supplying their physical needs. It means the study of their individual temperament. It means getting out into the world ahead of them and running up all the by-paths leading from the main road to see what of good or of evil lies there, so that they may deftly guide the young things away from the dangerous paths and allow them the freedom of the safe paths. They must, for example, know of the foul stories heard on the street, and tell their children of these, assuring them that manly little boys and gentle little girls despise such stories and despise the boys who tell them. Later their hearts will swell with pride as they see the strong little character already begun in their children of six or seven as they hurl withering retorts at the large boy, who otherwise might have become a dangerous ideal because of his superior size and worldly wisdom.

Parents must have time to tell innumerable stories to their children so that they may present to them the story of the origin of life in such an intricate and beautiful way that even before the age of nine or ten they will have unconsciously acquired sufficient knowledge to safeguard them. They must have time to cope with the difficult 'teen age boys and girls—to develop the courteous in the boy and a becoming reserve in the girl—to have a knowledge of all that society holds out to the boy and girl of the later 'teens—the beauties and the dangers of the dance—the use and abuse of card games—and of the cigarette craze, particular care even being taken to prepare the girl, before any emergency arises for a quick decision as to whether or not she will smoke. I do not believe smoking is good for women. Some say it is soothing—but it can only be soothing through the stimulation of already over-wrought nerves which should be rested to bring them back to normal. At this age, also, girls should be taught the danger of too great an unreserved intimacy with their boy friends, and vice-versa. A few parents still retain their admiration for the ignorant maiden pictured as Innocence in the Victorian era, but for the most part, our girls remain in ignorance of their danger, from the shrinking on the part of the parents from talking frankly to them.

So many mothers say to me that they know they should tell their

girls many things, but that they just seem unable to do so. But if these mothers could witness just one of the tragic scenes which takes place in a doctor's office, they would plunge in boldly and never rest until they had done their best, no matter how imperfectly it might be done. If they could hear just once, the despairing voice of a wrecked one, as she sobs, "Doctor, oh, doctor, it cannot be true!" "Mother! Mother!" she cries to the absent one. "Oh, doctor, why didn't my mother tell me—why didn't she warn me when I was young?—she must have known," and in the torture of her soul she talks on, while her doctor, endeavouring to show her that there yet may be much that is beautiful in life for her, grasps desperately at anything which will retain for the mother her place as an ideal. But when she has gone!—the doctor's head sinks on to her desk as the words still ring in her ears, "Why didn't my mother tell me, doctor—why didn't she warn me?—she must have known." And then she recalls the little pale-faced, tired woman with the diversity of duties, and yet again she recalls the startled thought of the little business girl, 'Was she retrograding?' Before her marriage she had a job which required training and skill, and which was well paid—but since her marriage she seemed to be messing about at a job which any girl could get with no training, no skill—and no pay.

Then, what is the difficulty: is it economic? is it social, or is it educational? Our parents, if they would make a success of their profession, must face its difficulties honestly and endeavour to solve them. The greatest danger to society and our coming generations is that the modern woman is finding the difficulties in other professions so much easier to overcome than those surrounding motherhood that she is quietly avoiding it by non-marriage.

But because they are difficult to solve and because they are surrounded by hundred of years of conventions, we must not be intimidated. We must face our problems and never cease until we have made parenthood so attractive that our statesman will again be crying out about birth control—but this time its maximum limitation—and until we have made parenthood so efficient that the side-roads will all lead safely to the main road and be filled with stalwart young citizens healthy in mind, healthy in body and healthy in soul.

Study of Infant Deaths in Toronto During the Summer of 1921

BY DR. A. GRANT FLEMING.

THE Department of Public Health has for several years made a survey of the deaths occurring amongst infants under one year of age, who died during the four summer months. These surveys have been carried on to discover the cause of these deaths, and with this information as a basis, to take such steps as were indicated to minimize the loss of our young citizens. For whatever we may feel as to the desirability of encouraging immigration, we all agree that the native born is more desirable.

In the year 1921 there were 1,211 deaths of children under one year, and of this number 446 occurred in the four summer months. This indicates that the number of deaths in this age group are about the same in summer as in the other months of the year. In the winter months the deaths in the respiratory group are numerous, and in summer those due to the diarrhoea-enteritis group mount up.

The investigation is made by the public health nurse. From central office a form is sent out, on which to record the information secured. Before the form goes to the nurse, central office enters all known facts, such as date of death, if birth has been previously registered, etc. The public health nurse obtains the rest of the information, securing it in the home and from the family physician, if she has not already a record in her file giving a complete history of the case. She then returns the form to central office where the tabulations are made.

Following is an outline of some of the most interesting facts obtained from the tabulations made for the deaths of this age group during June, July, August, September, 1921. Information was obtained covering 440 out of the 446 deaths. It was not considered advisable to attempt to secure information in six cases.

The first interesting point is the age at death of the 446 cases:—25 per cent. under one week; 10 per cent. one week to one

Read before Section of State Medicine, Academy of Medicine, Toronto,
April, 1922.

month; 17 per cent. one month to three months; 22 per cent. three months to six months; 26 per cent. six months to one year.

The causes of death are as follows:—Acute Communicable Diseases, 16; Tuberculosis, 4; Venereal Diseases, 3; Respiratory, 26; Intestinal, 167; Premature Birth, 76; Congenital, 88; Other Diseases, 67. Total, 446.

Of the 440 tabulated cases, 382 were the children of parents living in Toronto, 58 or 12% were children of non-residents. This latter group of 58 died in hospitals or institutions. As our hospital facilities make Toronto a centre for the care of sick children, it is to be expected that many sick infants will be sent into the City from outside, for hospital care. Our tabulation of deaths in hospital shows that of a total number of 156 deaths in the Hospital for Sick Children, 41 were the children of non-residents of this municipality. This of course keeps the infant death rate of our City higher than it would otherwise be.

Of the 440 deaths, 86 or 20% were the first child. I might here state that a separate study of this group as to cause of death did not reveal anything of interest, except that a higher percentage of deaths occurred in the first month, when compared to the whole group.

Of the 446 deaths, in only 65% were the births registered before the death occurred. Owing to recent commendable activity of the registrar-general, burial permits for infants under one year will not be issued until the birth is registered. The non-registration of births is a serious handicap in infant welfare work.

Last summer an intensive campaign to encourage breast feeding was started, and so of particular interest are the figures in regards to the type of feeding.

In considering these infants as to whether or not they were breast fed, only those that survived the first month were included, as it would be misleading to take into the classification those dying during the first month. There were 269 deaths, excluding the first month. Fifty-four of these 269, or 20%, were breast fed throughout life, 215 or 80% were only partially or not at all breast fed. Of this latter group of 215, there were only 32 cases in which there was an apparently good reason for discontinuing the breast feeding.

We see here that for every breast fed baby that died, four artificially fed ones succumbed; or in other words last summer the breast fed baby had certainly four times better chance of living than his artificially fed brother.

Considering the group of 215 infants artificially fed who survived the first month, we find that 165 had one type of feeding; 41 had two types; 9 had more than two types. This disproves our feeling that many children have a great variety of feedings.

The kind of artificial feeding used is also of interest:—85 had modified milk alone, and 27 had it in combination with other types of feeding. The other common foods used alone or in combination were Eagle Brand Condensed Milk 56, Glaxo 14, Nestle's 12, Mellen's 3, Horlick's 16, Allenbury's 12, St. Charles Evaporated 2, Arrowroot Biscuits 4, Others 9, Not stated 27.

From this it is evident that condensed milk and patent foods are extensively used in feeding.

Considering the age at death with relation to feeding we find that of the 215 partially, or non-breast fed, the breast feeding was usually discontinued in the first, or early in the second month. As an example, of the 24 infants who died when two months old, not one was breast fed for more than one month. Out of the 269 babies surviving the first month were selected 258 reports as having complete information regarding the period over which they were breast fed. From these reports we found that 101 were breast fed for less than one month. This shows so evidently that it is during the first month that breast feeding is so very often discontinued, that it is obvious that it is during this time when the mother must be encouraged to persevere in proper feeding. We have found that many mothers, when first getting up and about and undertaking some work, find the quantity of milk lessened, and if not previously instructed to expect this as a natural event, become alarmed and start to feed the infant with some patent food.

It seemed that a study of infants born in hospital would show the results of a proper start in regards to the continuation of breast feeding. Of 60 infant deaths, among babies born in hospital, 14 were never breast fed for the following reasons:—2 premature; 1 mother died; 1 illegitimate, mother refused; 1 mother had eclampsia; 1 mother had breast condition; 1 baby adopted; 1 put in baby home; 6 unknown.

Of the 46 that were breast fed, 12 only were thus fed throughout life, 17 for one month, 10 for two months or less. In only one case was there sufficient reason given for the discontinuing.

Amongst the infants, whose parents were residents of this municipality, 113 died of intestinal diseases. Of these 17 were breast fed and 96 artificially fed. This indicates that the breast fed baby is much better protected against this preventable condi-

tion. Of the 17 breast fed babies who died of intestinal diseases:—Two were over 9 months; 1 had complications of measles; 1 contracted diarrhoea from mother; 1 had spontaneous intestinal hæmorrhage; 1 was nine days' old; 11 are unexplained.

It is apparent that while a large percentage of infant deaths are in the first month of life, and due to prenatal and natal conditions, there are still a large number of preventable deaths in the first year of life, and that the solution of this problem lies largely in securing the breast feeding of all infants.

TABLE I.

AGE AT DEATH COMPARED WITH NUMBER OF MONTHS BREAST FED.

(Living 1 month or Over.)

Age at Death	Number	Breast Fed Through Life	Period Breast Fed, in Months.								Incomplete Information
			1 month or less	2	3	4	5	6	7	8	
1 month	14	7	7								
2 months	40	16	24								
3 "	29	6	13	10							
4 "	44	10	13	10	11						
5 "	24	1	10	5	3	5					
6 "	25	1	7	7	4	0	6				
7 "	21	1	6	5	4	1	1	3			
8 "	10	1	1	3	2				3		
9 "	16	1	8	1	1	1		1		3	
Over 9 "	35	10	12	2	6	3		1		1	
Not included because of incomplete information	11										11
Total	269	54	101	43	31	10	7	5	3	4	11

TABLE II.

TYPE OF ARTIFICIAL FEEDING.

(215 Infants Living One Month or Over.)

Type of Food	In Combination with		Total
	One Type	One or More Types	
Modified Milk	85	27	114
Eagle Brand	33	23	56
Glaxo	6	8	14
Nestle's	3	9	12
Mellen's	1	2	3
Horlick's	4	12	16
Allenbury's	3	9	12
St. Charles' Evap.	1	1	2
Arrowroot	1	3	4
Other	3	6	9
Not stated	25	2	27

165 Children had one type.

41 Children had two types.

9 Children had more than two types.

 215

Some Provincial Vital Statistics

BY INSPECTOR A. C. JOST, *Inspector of Health, Department of Public Health, Nova Scotia.*

ONE of the purposes of the study of Vital Statistics is to enable the student to determine the Provincial or community or corrective measures. No two Provinces or communities are alike in these respects. No two communities can use to equal advantage any set programme of health measures, for on each presses to an unequal degree various health problems for the solution of which a health organization exists.

Life saving is but one of the functions of a Health Department, a fundamental one it is true, but by no means one to which effort should be directed to the exclusion of all others. The necessity for the expenditure of effort in this direction is measured to a great extent by the mortality rates, and these are consequently regarded as indicative of the need for correction or proof of the efficacy of the effort, as the case may be.

These mortality rates, especially what is known as the General Death Rates, are the resultant of many and different forces. Race composition, age and sex, character of the population, economic status, customs and habits, education, climate, industrial conditions, each and all have an effect in determining this rate, in elevating it above a certain irreducible minimum. Some of these are capable of a certain amount of measurement or correction, which, if comparisons are being made, enable us to judge the relative need for the amount of success obtained.

The comparison of some of the Provincial rates, and the consideration of some of the factors capable of measurement is therefore well worth while.

The most causal examination of the returns of the censuses of the years 1911 and 1916 are sufficient to call attention to the tremendous difference in the numbers of the various age and sex groups of the different Canadian Provinces. This difference, easily discernible in the tables of population as actually enumerated, is more plainly observable in a table in which the numbers are shown under their age and sex grouping in an actual or hypothetical million of each Province's population. For comparison, tables show-

ing the "Standard Million" of the population of England and Wales for the period 1881-90, and actual or hypothetical millions of the population of the Canadian Provinces as determined from the census of 1911 are herewith given.

ENGLAND AND WALES.

Standard Million 1881-90.

Ages.	Male	Female.
1—4	64,122	64,557
5—9	59,333	59,673
10—14	54,806	54,765
15—19	49,720	50,287
20—24	42,922	47,564
25—34	71,131	77,499
35—44	55,095	58,944
45—54	40,472	44,478
55—64	27,151	30,893
65—74	15,184	18,326
75 and over	5,591	7,487
Totals	485,527	514,473

485,527

Total 1,000,000

PRINCE EDWARD ISLAND.

Age Group	Population 1911		(Actual or Hypothetical Million)	
	Male	Female	Male	Female.
— 4	5,070	4,866	54,124	51,946
5—9	5,167	4,997	55,159	53,345
10—14	5,462	5,056	58,309	53,974
15—19	5,387	5,194	57,508	55,448
20—24	3,955	4,131	42,221	44,100
25—34	5,655	5,927	60,369	63,272
35—44	4,718	4,755	50,366	50,761
45—54	4,258	4,274	45,456	45,626
55—64	3,584	3,394	38,260	36,232
65—74	2,461	2,560	26,272	27,329
75—				
Totals	47,039	46,635	502,157	497,843

502,157

1,000,000

(Those of unknown ages not included in above table.)

NOVA SCOTIA CENSUS OF 1911

Age Group.	Population 1911		Actual or Hypothetical Million	
	Male	Female	Male	Female
Under 5	29,817	28,720	60,691	58,458
5—9	28,061	27,610	57,117	56,199
10—14	26,271	25,475	53,473	51,853
15—19	25,426	24,697	51,753	50,269
20—24	22,076	21,433	44,934	43,646
25—34	35,483	32,337	72,224	65,824
35—44	28,199	26,005	57,398	52,932
45—54	21,320	20,501	43,396	41,729
55—64	16,201	15,648	32,976	31,851
65—74	11,555	11,353	23,519	23,108
75—	5,960	7,133	12,131	14,519
	250,369	240,922	509,612	490,388
	240,922		490,388	
Totals	491,291		1,000,000	

(Persons of unknown age not included in this table.)

NEW BRUNSWICK.

— 4	22,823	22,170	65,000	53,140
5—9	20,848	20,399	59,375	58,096
10—14	19,570	18,669	55,735	53,169
15—19	18,818	17,736	53,594	50,512
20—24	15,382	15,553	43,807	44,295
25—34	24,267	23,457	69,112	66,806
35—44	19,437	18,062	55,357	51,441
45—54	15,668	14,580	44,623	41,524
55—64	11,477	10,553	32,686	30,055
65—74	7,410	6,946	21,104	19,782
75—	3,623	3,676	10,318	10,469
Totals	179,323	171,801	510,711	489,289
	171,801			510,711
	351,124			1,000,000

(Ages of persons not given somewhat alter table. No consideration paid to this group in above table.)

QUEBEC.

— 4	145,906	145,160	73,044	72,670
5—9	128,195	128,640	64,177	64,399
10—14	111,422	110,750	55,780	55,443
15—19	100,554	99,644	50,339	49,884
25—34	145,210	140,535	72,696	70,355
35—44	106,008	100,897	53,070	50,511
45—54	78,395	75,721	39,246	37,908

QUEBEC—Cont.

Age Group.	Population 1911		Actual or Hypothetical Million	
	Male	Female	Male	Female
55—64	54,483	52,244	27,275	26,155
65—74	31,192	30,813	15,615	15,426
75—				
Totals	1,006,737	990,783	503,993	496,007
	990,783			503,993
	1,997,520			1,000,000

(Persons of unknown ages not included in above table.)

ONTARIO CENSUS OF 1911.

Under 5	132,937	129,284	52,839	51,387
5—9	123,165	120,068	48,954	47,724
10—14	118,421	114,597	47,069	45,549
15—19	122,631	116,814	48,742	46,430
20—24	127,710	118,160	50,761	46,965
25—34	221,714	200,300	88,125	79,613
35—44	166,024	154,552	65,990	61,430
45—54	128,104	120,394	50,918	47,853
55—64	81,832	76,992	32,526	30,602
65—74	47,817	47,434	19,006	18,853
75—	23,738	23,220	9,435	9,229
	1,294,093	1,221,815	514,365	485,635
	1,221,815		485,635	

Totals 2,515,908 1,000,000

(Persons of unknown ages not included in this table.)

MANITOBA.

— 4	31,649	30,923	70,030	68,423
5—9	25,592	25,137	56,627	55,620
10—14	21,648	21,167	47,900	46,836
15—19	22,117	20,656	48,938	45,705
20—24	28,210	21,239	62,420	46,995
25—34	51,033	35,906	112,920	79,449
35—44	31,211	22,545	69,060	49,885
45—54	19,808	14,524	43,829	32,137
55—64	10,199	7,517	22,567	16,633
65—74	4,335	3,470	9,592	7,678
75—	1,646	1,407	3,642	3,114
Totals	247,448	204,491	547,525	452,475
	204,491			547,525
	451,939			1,000,000

(Persons of unknown ages not included in above table.)

SASKATCHEWAN CENSUS OF 1911.

Age Group.	Population 1911		Actual or Hypothetical Million	
	Male	Female	Male	Female
Under 5	35,977	35,023	73,864	71,905
5—9	27,389	26,357	56,232	54,113
10—14	21,475	20,675	44,090	42,447
15—19	22,776	17,882	46,761	36,711
20—24	37,990	19,813	77,996	40,678
25—34	69,896	36,098	143,502	74,112
35—44	36,946	21,204	75,853	43,534
45—54	19,927	12,507	40,911	25,678
55—64	10,148	6,529	20,835	13,405
65—74	3,801	2,587	7,804	5,311
75—	1,190	884	2,443	1,815
	<hr/>	<hr/>	<hr/>	<hr/>
	287,515	199,559	590,291	409,709
	199,559		409,709	
	<hr/>	<hr/>	<hr/>	<hr/>
Totals	487,074		1,000,000	

(Persons of unknown ages not included in this table.)

ALBERTA.

— 4	24,647	23,795	66,697	64,392
5—9	20,280	19,303	54,880	52,236
10—14	16,618	15,744	44,970	42,605
15—19	17,123	13,868	46,337	37,528
20—24	28,035	14,212	75,866	38,459
25—34	53,570	27,486	144,966	74,380
35—44	30,716	17,531	83,120	47,440
45—54	17,249	10,327	46,677	27,946
55—64	8,077	4,914	21,857	13,298
65—74	2,711	1,891	7,336	5,117
75—				
	<hr/>	<hr/>	<hr/>	<hr/>
Totals	219,879	149,657	595,014	404,986
	149,657			595,014
	<hr/>	<hr/>	<hr/>	<hr/>
	369,536			1,000,000

(Persons of unknown age not included in above table.)

BRITISH COLUMBIA.

— 4	17,911	17,966	46,115	46,257
5—9	15,062	14,348	38,780	36,941
10—14	12,989	12,367	33,443	31,841
15—19	15,489	11,778	39,879	30,325
20—24	30,461	13,692	78,427	35,253
25—34	71,272	28,938	183,503	74,506
35—44	45,007	19,772	115,879	50,907
45—54	24,923	11,571	64,169	29,792

BRITISH COLUMBIA—*Cont.*

Age Group.	Population 1911		Actual or Hypothetical Million	
	Male	Female	Male	Female
55—64	10,503	5,731	27,042	14,755
65—74	3,888	2,438	10,010	6,277
75—	1,336	955	3,440	2,459
Totals	248,841	139,556	640,687	359,313
	139,556			640,687
	388,397			1,000,000

(Persons of unknown age not included in above table.)

Bearing these differences in the age and sex composition of the populations of the Provinces in mind, it can be readily understood why a comparison of the crude death rates is of very little value. For a comparison which would permit of a definite pronouncement being made, a method of measuring the effects which a number of causes are having must be devised.

Such a process has been suggested by Newsholme, whose method procures for us a figure, called "the Factor of Correction", which is the measure of the difference in the age and sex grouping as against a certain grouping which is taken as a standard. A convenient standard which may be used for this purpose is to be found in the figures from England and Wales for the period 1881 to 1890, though any standard may be selected, provided there are available in connection with it certain data in sufficiently full detail.

The method applies to the members of the various age and sex groups of the place under consideration the specific death rates of the same age and sex groups of England and Wales. This results in the determination of a certain hypothetical or computed number of deaths being obtained. From this number of computed deaths, the population of the country being known, a computed death rate is obtained, which applied to the crude death of the country taken as the standard, results in the finding of a figure, which thus measures the difference of the effect which the age and sex grouping has on the rate. This figure is called the "factor of correction."

An example of the procedure follows, the population figures being those of the Province of Nova Scotia during the year 1911, divided into age and sex grouping as determined by the census, the death rates being the specific death rates of the same groups in England and Wales during the period 1881-90, and the crude death rates of the same place for the same period.

STANDARD DEATH RATES FOR NOVA SCOTIA.

Census Returns of 1911. Standard E. & W. 1881-1890.

Age Groups.	Males	Females	E. & W. Death Rate M.	E. & W. Death Rate F.	Comp. Deaths Male	Comp. Deaths Female	Comp. Deaths Total
Under 5	29,817 plus 80	28,720 plus 46	61.59	51.95	1,841	1,494	3,335
5—9	28,061 "	27,610 "	5.35	5.27	150	145	295
10—14	26,271 "	25,475 "	2.96	3.11	77	79	156
15—19	25,426 "	24,697 "	3.8	4.42	110	109	219
20—24	22,076 "	21,433 "	5.73	5.54	126	118	244
25—34	35,483 "	32,337 "	7.78	7.41	276	240	516
35—44	28,199 "	26,005 "	12.41	10.61	350	276	626
45—54	21,320 "	20,501 "	19.36	15.09	403	309	712
55—64	16,201 "	15,648 "	34.69	28.45	563	445	1,009
65—74	11,555 "	11,353 "	70.39	60.36	815	686	1,501
75—	5,960 "	7,133 "	162.62	147.98	971	1,057	2,028
Totals	250,369 plus 650	240,922 plus 397	(Ages not given).				10,641
	251,019	241,319					

$$\text{Death Rate of Computed Deaths} = \frac{10,641 \times 1,000}{492,338} = 21.61$$

$$\text{Factor of Correction} = \frac{19.15}{21.61} = .886$$

NOTE.—Persons of unknown age have been added pro rata to the various age and sex groups.

The same process applied to the populations of the other Provinces results in obtaining the following factors of correction which must be applied to their crude death rates in order to bring them into a comparable condition so far as their age and sex groupings are concerned.

FACTORS FOR CORRECTION FOR THE PROVINCES FOR AGE AND SEX GROUPING, CENSUS OF 1911.

Province	Factor of Correction
Prince Edward Island	.870
Nova Scotia	.886
Quebec	.965
Ontario	.981
Manitoba	1.103
Alberta	1.173
Saskatchewan	1.123
British Columbia	1.213

A standardization from the point of view of the urban and rural elements of the populations may be worked out along the same lines as that adopted to standardize for the age and sex groupings.

An example of this, again taking the population figures for the Province of Nova Scotia is as follows:—

Urban Population	Rural Population	Urban Death Rate E. & W. 1881-90	Rural Death Rate E. & W. 1881-90	Comp. Deaths Urban	Comp. Deaths Rural	Total
186,128	306,210	20.3	17.3	3,778	5,297	9,075
186,128 plus 306,210 = 492,338 = Total population.						
9,075 x 1,000						

$$\text{Computed Death Rate} = \frac{9,075 \times 1,000}{492,338}$$

$$= 18.42$$

$$19.15$$

$$\text{Factor of Correction} = \frac{18.42}{19.15}$$

$$= 1.039$$

In this way factors of correction for the rural and urban elements of the provincial populations are found to be as follows:—

FACTORS OF CORRECTION FOR THE PROVINCES, FOR RURAL OR URBAN GROUPING, CENSUS OF 1911.

Province	Factor of Correction
Prince Edward Island	1.078
Nova Scotia	1.039
Quebec	1.021
Ontario	1.014
Manitoba	1.028
Alberta	1.038
Saskatchewan	1.058
British Columbia	1.015

Applying these factors of correction to the crude death rates of the provinces as given in the Canada Year Book, the following results are obtained:—

Province	Crude Death Rate	Factor of Correction Age or Sex	Factor of Correction Urban or Rural	Standardized Death Rates
Prince Edward Island	11.89	.870	1.078	11.15
Nova Scotia	16.73	.886	1.039	15.40
Quebec	17.92	.965	1.021	17.65
Ontario	12.63	.981	1.014	12.56
Manitoba	12.03	1.103	1.028	13.64
Alberta	9.69	1.173	1.038	11.79
Saskatchewan	5.54	1.123	1.058	6.58
British Columbia	9.32	1.213	1.015	11.47

The additional information furnished by the census of the Prairie Provinces in 1916, gives data from which more complete comparisons are possible. It will be seen that in each of the three provinces enumerated a material change has taken place in the age and sex grouping, which change is well shown in the relative numbers of the groups in a million.

PROVINCE OF MANITOBA CENSUS OF 1916.

Age.	Actual Population		Number in 1,000,000.	
	Male	Female	Male	Female
— 4	40,196	39,107	72,788	70,816
5—9	34,190	33,558	61,913	60,768
10—14	27,725	26,780	50,205	48,494
15—19	23,903	23,668	43,284	42,859
20—24	25,930	24,972	46,954	45,220
25—34	54,812	45,312	99,256	82,053
35—44	39,951	30,104	72,345	54,513
45—54	25,457	18,647	46,099	33,767
55—64	13,609	10,248	24,643	18,557
65—74	5,751	4,586	10,414	8,304
75—	1,964	1,762	3,557	3,191
Totals	293,488	258,744	531,458	468,542
	258,744		468,542	
	552,232		1,000,000	

PROVINCE OF ALBERTA CENSUS OF 1916.

Age.	Actual Population		Number in 1,000,000.	
	Male	Female	Male	Female
— 4	35,580	34,762	72,295	70,632
5—9	29,571	28,331	60,081	57,565
10—14	23,766	22,474	48,288	45,665
15—19	20,079	19,092	40,806	38,793
20—24	23,553	18,813	47,857	38,225
25—34	57,856	39,253	117,553	79,758
35—44	42,191	27,569	85,728	56,017
45—54	24,124	15,480	49,016	31,453
55—64	12,284	7,963	24,959	16,179
65—74	4,484	2,846	9,110	5,782
75—	1,143	943	2,322	1,916
Totals	274,631	217,526	558,015	441,985
	217,526		441,985	
	492,157		1,000,000	

PROVINCE OF SASKATCHEWAN CENSUS OF 1916.

Age.	Actual Population		Number in 1,000,000.	
	Male	Female	Male	Female
— 4	51,391	49,898	79,417	77,110
5— 9	41,379	39,883	63,947	61,633
10—14	31,315	30,097	48,395	46,510
15—19	26,150	24,114	40,412	37,265
20—24	34,519	24,947	53,332	38,552
25—34	77,328	50,100	119,503	77,423
35—44	51,994	32,460	80,351	50,162
45—54	27,482	17,502	42,470	27,047
55—64	14,543	9,738	22,474	15,048
65—74	5,594	3,910	8,644	6,042
75—	1,592	1,167	2,460	1,803
Totals	363,287	283,816	561,405	438,595
	283,816		438,595	
	647,103		1,000,000	

These alterations in the age and sex grouping result in bringing about quite a change in the figures of the factors of correction for this cause, though the factors of correction for the rural or urban elements of the population have experienced little change. These factors are as follows:—

PRAIRIE PROVINCES, CENSUS OF 1916.

Province.	Factor of Correction	Factor of Correction
	Age and Sex	Rural or Urban
Manitoba	1.069	1.029
Alberta	1.100	1.039
Saskatchewan	1.075	1.057

Assuming that the changes in these factors took place progressively in the intercensal years, and accepting the crude death rates as contained in the Canada Year Book as bases, standardized death rates for these Provinces are obtained as follows:—

MANITOBA.

Year	Crude Death	Factor of Correction	Factor of Correction	Standardized
	Rate	Age and Sex	Rural or Urban	
1911	12.03	1.103	1.028	13.64
1912	12.58	1.096	1.028	14.17
1913	13.10	1.089	1.028	14.66
1914	10.78	1.082	1.029	12.00
1915	10.12	1.075	1.029	11.18
1916	9.86	1.069	1.029	10.84

ALBERTA.

Year	Crude Death Rate	Factor of Correction Age and Sex	Factor of Correction Rural or Urban	Standardized Death Rate
1911	9.69	1.173	1.038	11.79
1912	9.71	1.158	1.038	11.67
1913	9.09	1.143	1.038	10.68
1914	7.35	1.128	1.039	8.61
1915	7.30	1.114	1.039	8.44
1916	8.17	1.100	1.039	9.33

SASKATCHEWAN.

1911	5.54	1.123	1.058	6.58
1912	6.29	1.114	1.058	7.41
1913	6.58	1.104	1.058	7.69
1914	5.47	1.094	1.057	6.32
1915	6.68	1.084	1.057	7.65
1916	7.81	1.075	1.057	8.87

When the tabulation of the populations of the Provinces shall have been completed, utilising the information obtained at the last Dominion Census, this computation can be brought down to date. In addition, information may be obtained which may make possible other corrections of the crude rates, allowing for differences other than those considered in this article.

Sex Education

(Continued from previous issue.)

Future of Sex-ethics.—We must not overlook the possibility that the marvellous progress of sanitary and medical science may some day largely reduce the health problems of sex without improving morality. While sex-education was first planned to solve the health problems, the ultimate sex-education must attempt to guide sexual conduct by moral principles. In short, the future teaching of rational sex-ethics must show young people the advantages of monogamic relations of the sexes (see Dr. Cooper's paper on "The Monogamous Ideal," published by A.S.H.A.).

Teaching Eugenics.—The responsibility of the individual for future generations is best taught in courses of general biology in which the study of heredity of plants and animals is now an essential part. However, large numbers of high school and college students do not take courses in biology, and therefore it is desirable that popular series of illustrated lectures, dealing with heredity or genetics as applied to human life, should be made available for all students. This has already been done in many high schools and colleges.

Venereal Diseases.—For the effective combating of venereal diseases it is necessary that the public possess information on various matters concerning sex in addition to hygiene relating to these diseases. As a constructive measure looking toward the future control of venereal diseases, it is necessary that children should be instructed and trained so that they will develop proper attitude and conduct with regard to the sex side of life and its successful management.

A complete programme for combating the venereal diseases requires the measures (a) to (e) below for the protection of uninfected people, and (f) to (j) which are applicable to infected individuals:

(a) Education concerning sex and its manifold relations to human life, including limited and carefully selected information on the dangers and ways of transmission of the venereal diseases.

(b) Religious and ethical instruction intelligently related to the avoidance of sexual relations outside of marriage.

(c) Wholesome recreation and entertainment tending away from promiscuous sexual contact.

(d) Protective social measures to prevent untoward results from casual acquaintanceships in public.

(e) All measures of law enforcement (arrest and trial, probation, jail sentence, enforcement of age-of-consent laws) that will make the uninfected persons cautious with regard to sexual contact.

(f) Proper and adequate treatment and instruction of the infected in protection of others with a minimum of restriction upon their liberty.

(g) Social Service "follow-up" to investigate and bring under similar treatment and instruction when necessary all persons infected as a result of association and contact with the infected.

(h) Isolation, quarantine, arrest and trial, sentence to industrial school, prison farm, or other institution for the unco-operative or incorrigible infected.

(i) Enforcement of laws for reporting of venereal disease without infringement upon personal liberty.

(j) Co-operation of the clergy by demanding evidence of a careful medical examination before marriage.

Nature-study and Biology.—The life-histories of plants and animals as taught in the best nature-study and elementary biology of our schools are important in forming attitude towards reproduction and giving a basis for simple and truthful answers to children's questions as to the origin of the individual human life. It is not claimed that biological studies have a direct moral value.

Literature for Sex-education.—In the world's best literature there is much that teaches important lessons in the field of the larger sex-education or social-hygiene education. In the guise of love, sex problems have always held the prominent place in all literature. Many there are among the believers in the larger sex-education who feel sure that young people's greatest safety lies in having high ideals of affection and of womanhood and manhood; and standard English literature is very helpful in developing such ideals. See pamphlets on this subject published by A.S.H.A.

Home-making.—The home-making courses, commonly known as household arts or home economics, offer splendid opportunities for unobtrusive introduction of high school girls and college women to problems of social hygiene which centre in the home. However, a large proportion of girls and young women do not elect such courses in schools and colleges, and therefore there is need of popular lecture courses on home health and home-making. Such a course of thirty lessons was described in the lecture given by Dr. Florence Richards.

At present there is a recognized weakness in the above suggestion, and in the entire household arts programme, in that no provision is made for reaching boys and young men who should be instructed and influenced concerning the mental, social, hygienic, and economic affairs of the home.

General Science.—Introduction to science, commonly known as "general science" in junior high schools and in the first year of regular high schools, offers exceptional opportunities for giving hygienic instruction to pupils of both sexes. A special pamphlet by the U.S.P.H.S. suggests the possibilities of social-hygienic instruction through general science.

Physical Education and Hygiene.—In the lectures and conferences concerning these subjects there was great emphasis upon the importance of making healthy living as affected by sex a natural part of health education. It was agreed that the teacher of these subjects is in a strategic position for personal guidance. There was general agreement on the importance of organized and directed physical activity as working towards substitution for, not sublimation of, instinctive sexual tendencies.

The experience of a limited number of higher institutions, chiefly those co-operating with the Interdepartmental Social Hygiene Board, demonstrates that some of the most vital instruction and guidance is that which is given in connection with the individual health examinations and conferences in which the analysis of personal habits and conduct of life are an essential part. No higher educational institution can be regarded as truly efficient which does not provide such service.

Problems of Young Men.—We of the older generation gain nothing in trying to minimize the young man's sexual problems, for he is quite conscious that they are insistent. Far better it is that mature men who know life in its completeness should make the young man feel that his problems are not new, and that many another man has met and solved them in such a way as to make life more full of real happiness.

Those who attempt to direct young men through the bewildering mazes of sexual life should hold up ideals not only of pre-marital continence based on a looking forward to love and marriage, but also of post-nuptial temperance and harmonious adjustment between husband and wife.

Personal Influence.—If ever there is a time in a boy's life when he needs intimacy with his mother, or another mature woman, it is in the early adolescent years of twelve to fifteen. A strong

woman's heart-to-heart guidance at that time will influence a boy more than all the sex-education which the schools and colleges combined can ever hope to offer. In guiding safely in sex life, we must believe in the "contagiousness of personality."

It matters little for the future purity of the boy on the threshold of manhood whether he learns to love "the woman" in the dreamland of youth or in the very real world of life. It is simply a question of the intensity of the devotion and of the loftiness of the ideals which she arouses within him.

Sex-education a Guide to Choice.—The one essential task of sex-education in its broadest outlook is to guide natural human beings to recognition and choice of the greatest good in the sexual sphere of life. It can do no more than give the individual a basis for intelligent choice between good and evil; but here, as in all other upward movements of human life, the decision must depend upon a clear and positive recognition of the advantages of the good as contrasted with the evil. Sex-education, like all other education, strives towards ideals that individuals and society may always continue to approach, but will never reach in the ever-advancing improvement of sexual conditions in individual as well as in social life.

Future Results of Sex-education.—We believe in general education because it aims to offer all individuals help in preparation for more efficient life, although it succeeds only in part. Likewise, we should stand for the education of all young people in matters concerning sex because it is certain that such knowledge will function completely in many lives and will work appreciable good in others.

Only the ultra-Utopian dreamer will claim that sex-education can solve all the sexual problems of civilized life, but even the most pessimistic disbeliever in the new movement admits that knowledge of sexual life will be helpful to the great majority of people. It is not to be expected that the educational attack will solve all sex problems for all people.

Sex-education Permanent.—The larger sex-education or social-hygiene education is sure to have a permanent place in the never-ending work of preparing coming generations for the highest development of life's possibilities. Each succeeding generation of young people must be prepared by educational processes to face intelligently and bravely the manifold problems of sex that are sure to come into every normal life.

Social Hygiene and Monogamy.—The American sex-education movement, as stated in the first lectures, aims to educate young people to control sex instincts for the purpose of securing the

greatest social health and happiness. The monogamic ideal of morality stands for a great good available in sex life. Monogamic idealism or super-morality is the greatest good within our present vision, for it means the fullest development of the possibilities of affection which in human life has been superadded to the biological reproduction of the highest animals. In short, the whole American sex-education movement, as distinguished from certain mere sex-information or sex-hygiene campaigns, centres in the greatest good or well-being which may come to individuals and society from sexual life culminating in affection as the basis for the monogamic family.

The Victorian Order of Nurses for Canada

At a Special Meeting of the Board of Governors of the Victorian Order of Nurses for Canada, March 6th, 1922, held at Government House, Dr. M. T. MacEachern, medical superintendent of the Vancouver General Hospital, was appointed Director-General of the Victorian Order of Nurses for Canada, to be associated with the Executive Council and the executive nurses of the Order in the administration of its affairs. Dr. MacEachern has a national as well as international reputation in public health and in the standardization of hospital service. He will arrive in Ottawa to take up his new duties the first week in May.

The position of District Superintendent of Greater Montreal, rendered vacant by the resignation of Miss O. Z. DeLany, has been filled by the appointment of Miss Margaret Moag. Miss Moag was born in Smith's Falls, Ontario, graduating from the Kingston General Hospital in 1904. She served as Assistant and Night Superintendent of the Butterworth Hospital, Grand Rapids, Michigan, for two years, and then was appointed Superintendent of the Mowat Sanitorium, Kingston, Ontario. Miss Moag took her public health course in Detroit, Michigan, was head nurse of the T. B. Hospital, and superintendent of the West End Branch of the public health staff in that city, which position she resigned for Overseas duty, 1917-1919. Since demobilization, Miss Moag, has been doing valuable social service work for the S.C.R. in Ottawa. Her duties will commence April 24th and she brings not only the benefit of her wide experience, but a most pleasing personality to the service in Montreal.

Miss Jessie Forshaw, R. N. Inspector, has returned from a four months' inspection and survey of the Maritime Provinces and the Quebec peninsula, in response to the great demand for community nursing in Eastern Canada. While in the Maritime Miss Forshaw addressed many of the local associations and other welfare organizations in the interests of Public Health. Miss Forshaw leaves April 18th to organize some new districts in Northern Ontario.

Miss Alberta Burns, of the Toronto staff, has accepted the position of nurse in charge of the Sackville, N.B., district.

Mrs. Hanington, the Chief Superintendent, leaves for Cochrane April the 18th to consult with the Board of the Lady Minto Hospital there with regard to the establishing of a training school in con-

nection with that institution. This training school will have affiliation with some of the large Ontario hospitals. From Cochrane Mrs. Hanington will go to Sudbury to establish a nursing service at the request of both the citizens and the Metropolitan Life Insurance Company of Sudbury.

The office of the Central Board is being moved from the Holbrook Chambers to the Jackson Building, where better accommodation for the increasing activities of the Order are available.

Social Background

Mental Defect and Venereal Disease

MISS F. E. BROWN, *Special Supervisor, Department of Public Health, Toronto.*

THE exact number of persons suffering from venereal disease in any community at any time is difficult to compute since the reporting of these diseases is not and probably never will be complete.

As a result of examinations made in this country and others in connection with selected groups, certain conclusions have been reached as to the prevalence of these diseases. It is estimated that 8% of our Canadian population, or approximately 640,000 persons, are infected with syphilis and several times as many with gonorrhoea. It must be remembered that this is an estimate only.

The number of deaths which occur each year is not definitely known since the stigma which is attached, even in death, to persons so infected, results in the reporting of these deaths as due to other causes. Enough, however, is known of the results of venereal disease to state that they are the first among diseases causing suffering and death. When we consider the deaths which occur each year due to locomotor ataxia and general paralysis of the insane, which are in 100% of the cases due to syphilis, the deaths of infants during the first few weeks of life which are due to the same cause, as well as the more obscure diseases of the heart, blood vessels and nerves whose cause may be traced to the organism causing syphilis, we begin to realize the significance of the statement of the late Sir William Osler: "Syphilis at the top an easy first among the infections as a cause of death." Concerning the other disease, gonorrhoea, the same great authority has said: "From the standpoint of race conservation, gonorrhoea is a disease of the first rank. With '30-40' of all cases of congenital blindness, with the chronic pelvic mischief in women, with the unhappiness of sterile marriages, with these and many minor ailments stored up against it, we may say that while not a killer, as a misery producer Neisser's gonococcus is king among germs."

The economic loss to our country each year, due to venereal

disease is difficult to estimate, but if we count the cost of maintaining the inmates of our insane asylums whose condition is due to syphilis, the deaf and blind in our Government institutions who are there through the same cause, and the widows and orphans made dependent because of the death of the breadwinner and locomotor ataxia or general paresis of the insane at middle life, we shall have a heavy account to settle against these diseases.

Before the war little was done in a general way toward the control and prevention of venereal disease. The knowledge brought to the public through the war concerning the prevalence of these diseases and their disastrous consequences, not only to the individual, but to the nation itself, was responsible for an entire change of attitude on the part of the public toward this question. The cure and prevention of these diseases ceased to be an individual matter, and it became a matter of national concern that they be treated, the treatment to be paid for, if necessary, out of public funds. It was this new attitude which made it possible for governments to bring in legislation dealing with the control of venereal disease and to authorize appropriations out of public funds to carry on a campaign of treatment and education.

Ontario is at present well equipped to deal with the disease end of the venereal disease problem. Government clinics have been established in which last year over 40,000 treatments were given.

We have a good law, well supported by public opinion to deal with the recalcitrant, and we have a well organized volunteer society carrying on constantly a campaign of education. Much has been accomplished in the interests of public health. New cases of disease have been located and placed under treatment, infectious cases have been isolated and much future suffering has been spared humanity.

In spite of all this we do not seem to make much of an impression upon the problem. New cases of infection occur daily and our clinics have constantly new recruits. It becomes evident that the disease problem is not solved by the provision of medical means alone. The causes and source of the disease do not end with the spirochaete and gonococcus, but go deeply into the make-up of society and of the individual. It will need the co-operation of the best forces of the community with the health authorities if these diseases are to be prevented and the medical means provided made reasonably efficient.

It is a well-known fact that prostitution, either professional or clandestine, is the greatest source of infection in this disease.

Venereal disease is the result of sexual promiscuity, because the physical facts of the transmission of the disease make it so. The person (male or female) who is sexually promiscuous constitutes a very serious problem from the disease point of view. These persons rarely escape disease. A complete cure in their case is practically impossible, and because of their mode of living they become the most prolific sources of infection.

The removal then of the cause and source of these diseases means a change in the habits of living of these persons.

How far is mental deficiency responsible for sex delinquency and venereal disease?

A fallacy common to social workers is the belief that all persons who have broken the moral law regulating sex conduct are mentally abnormal. It has been an easy way to account for and dispose of persons whose conduct we cannot understand nor sympathize with. It is certain that mental abnormality is an important factor in causing irregular sex conduct with resultant illegitimacy and venereal disease, but this is not the whole story by any means. The persons who apply to our public clinics for free treatment include a large number whose mentality is below normal, but there is no doubt that the private patients of our venereal disease specialists include persons who are not mentally deficient if success in life is evidence of mental normality.

In studying the causes of sex delinquency and prostitution I think we must keep in mind the fact that we are dealing with the expression of one of the most fundamental of human instincts, whose control varies with the individual and the surroundings in which he finds himself. In my opinion one of the first causes is the present attitude of society toward this question, "the double standard of morality." Other important causes are bad home conditions which include, bad example in the home, lack of parental control, *bad environmental conditions*, which include lack of educational opportunity, or industrial training, monotonous work, bad companions and lack of proper recreation.

Conditions due to individual make up including bad heredity, abnormal physical and mental make up, and early sex experiences.

In studying the causes which contribute to sex delinquency all these factors must be taken into consideration. The point to be remembered is, however, that if the delinquency arises through any one of the other causes the delinquent may become a normal individual when the cause is removed. If the delinquency is due to mental deficiency, the outlook is entirely different. Mental defi-

ency is incurable and irremediable and any amount of reformatory work will not succeed in reforming the individual. Therefore, this is a point which it is important to decide before undertaking any plan of rehabilitation for the delinquent.

It is a well-known fact that the mental deficiency rate is high among female prostitutes, especially professional prostitutes.

Statistics issued by the American Social Hygiene Association in July, 1919, state that 33% of all prostitutes in the United States are feeble minded. This estimate is based on the examination of 2,738 prostitutes in the following institutions:

	Number examined.	Percent found feeble minded.
Illinois Training School for Girls	104	97
Chicago Morals' Court	126	85.8
Segregated District of a city in Virginia.....	639	71.6
Chicago Morals' Court	639	62
Report of Mass. Com. for the Investigation of White Slave Traffic	300	51
Mass. State Reformatory for Women	243	49
California School for Girls	124	34
Seventh Annual Report, New York Probation and Protection Ass., 1915	164	34
Boston Municipal Court	100	30
Bedford Reformatory, New York	647	29
Probation and Protection Ass., 1917	171	27

Mr. Justice Hodgins' report of 1919 gives the proportion of mental defectives in the population of Toronto institutions dealing with female sex delinquents, as follows:

Mercer Reformatory for Women	23%
Salvation Army Home	30%
Salvation Army Maternity Home	50%
Alexandra Industrial School	85%
The Haven	75%

The rate of venereal disease among prostitutes is very high, depending on the length of time they have followed the life. It is estimated that 75% of professional prostitutes have one disease or both. Of 142 persons, nearly all of them sex offenders, in the Mercer Reformatory at the present time, 100, or 70.42%, are under treatment for venereal disease. In a survey of 100 cases attending the clinic for syphilis at the Toronto General Hospital, 899 per-

sons were sexually immoral, and only eleven were classified as normal mentally.

The definition of Mental Deficiency as given in *The Mental Deficiency Act of Great Britain, 1913*, is as follows:

- (a) *Idiots*.—Persons so deeply defective in mind from birth or from an early age as to be unable to guard themselves against common physical dangers.
- (b) *Imbeciles*.—Persons in whose case there exists from birth or from an early age mental defectiveness not amounting to idiocy yet so pronounced that they are incapable of managing themselves or their affairs or in the case of children being taught to do so.
- (c) *Feeble-minded persons*.—Persons in whose case there exists from birth or from an early age mental defectiveness (not amounting to imbecility, yet so pronounced that they require care, supervision for their own protection, and the protection of others, or in the case of children that they by reason of such defectiveness appear to be permanently incapable of receiving proper benefit from the instruction in ordinary schools.
- (d) *Moral Imbeciles*.—Persons who from an early age display some permanent mental defect, coupled with strong vicious or criminal propensities on which punishment has little or no deterrent effect.

The first two groups cause little trouble from the venereal disease point of view, because of the extent of their defect they are given sufficient protection through family or institutional care to keep them out of harm's way. It is the last two groups, especially the women of the group, which constitute our problem. The feeble-minded boy or man does not constitute as pressing a social problem. A defective girl, especially the moron type, is frequently possessed of great physical attraction as a result of which men of normal mentality are led to approach her. The feeble-minded boy or man is ordinarily unattractive to the normal woman.

Contrary to popular opinion the mentally abnormal girl is not necessarily possessed of extraordinarily developed sex instincts, but rather of markedly undeveloped inhibitions. She usually plays the passive role, is very susceptible, and becomes the dupe of the first person who wishes to do her harm.

From the standpoint of cure the mentally defective patient in our venereal disease clinic is well-nigh hopeless. They come to us from maternity homes, courts and jail. After a few treatments

they disappear and are lost in our city's underworld, reappearing in hospital, court or jail. After months of intensive treatment in hospital or reformatory they are discharged physically clean and full of good intentions to commence all over again and "go straight." In a few months they return, usually reinfected, and the same story commences all over again. They are not capable of profiting by experience, fear has no permanent appeal, and punishment is useless.

It becomes evident, then, that the prevention of venereal disease in the future and the making effective of treatment provided for this disease depends to a large extent on what we do with the feeble minded. As long as they are in our midst we have an ever-present source of infection.

The statistics regarding mental defectives have been gathered in the past through the examination of selected groups, usually the misfits and anti-social members of society, i.e., the population of reformatories and penal institutions.

During the war an opportunity was given for the first time of examining large numbers of the so-called normal members of society. The results obtained have given us a new concept of the feeble minded problem. We have learned that there are large numbers of mental defectives in our midst living useful harmless lives. They are the people who are doing the simple tasks of life, "the hewers of wood and drawers of water." We have learned also that the anti social acts of many other defectives might have been prevented had their defect been recognized early enough and provision made for their proper education, training and supervision in the community.

There is another group of persons, however, who by reason of defect in mental or emotional makeup can never be trained to become good citizens. Of these Treadgold has said "they are inherently incapable of conforming to the legal and moral codes of society." It is this group which causes most of the trouble, and for a certain proportion of these no remedy will avail but the taking away of the liberty they are not capable of using. It is this group that constitutes the great problem in an attempt to control the spread of venereal disease. What are we doing in Ontario with the feeble minded?

In 1917, a commission was appointed by the Ontario Government to consider and inquire into the existing methods of dealing with imbecile feeble minded or mentally defective persons in the

Province of Ontario. Mr. Justice Hodgins, in submitting his report in 1918, comes to the following conclusions:

1. In the Province of Ontario feeble mindedness or mental deficiency has never been legally defined nor practically dealt with. There is one institution, excellent in kind and management, into which all kinds of mental defectives, except the insane, have been sent, when there was room for them, or when the various penal or corrective institutions got tired of caring for them or became overcrowded. But the Province has not, and never had, any machinery for ascertaining mental defectives, for educating them, or for trying to prevent their easy development into irreclaimable criminals. Even the legislation in aid of neglected children and the school acts providing for the education of the young deal wholly with normal children. Those who are not normal are left to find their way into the courts and thence to jail, or remain to be a constant factor in hindering the education of ordinary children and demoralizing their conduct.

The magnitude of the evil, thus left untouched, is very great. There is no more potent influence in the production of vice and crime than the unwatched mental defective. This Province is "no exception to the rule, abundantly proved in other countries, that the largest proportion of crime and of the cost of endeavouring to counteract it, are due to mental defectives who have been allowed to continue at large. Never having had any useful training in their youth, they are allowed in maturer age, as "repeaters," to congest the courts and crowd the jails. The inter-relation of crime and feeble-mindedness is put beyond all controversy by what is detailed in this report.

"If the cardinal fact could be assimilated that the elimination of the mental defective from the school and from the street, and from the agencies engaged in reforming character, would render the efforts of teachers and social workers comparatively easy, and empty the jails of over half their inmates, and that these unfortunates can, if taken in time, be made comparatively happy and useful, there would be little time lost in bringing about that desired result.

"It is the mental defective among the population of our Province who has, and, if left untouched, will, continue to hamper and defeat in large measure the social and educational work done in our midst and to waste the effort to bring about better conditions. There is therefore great need for an immediate, intelligent and systematic effort to ascertain, record, educate and care for the

mentally defective, to know whom we mean by that term, and how many there are. It is necessary to realize that they fall broadly into two classes, the comparatively harmless and the anti-social; and also to grasp, as the leading idea, the fact that while these two classes may need, in the end, totally different treatment, the whole benefit to the public is brought about by the application of proper care and training to all who come within the definition of feeble mindedness, provided they undergo it at an early age."

It is now four years since this report was presented, and very little has been done except in the case of the schools to carry out the recommendations suggested to remedy the conditions as mentioned in this report.

As social workers interested in the welfare of those who cannot be expected to help themselves, it would seem that we should do all in our power to see that the recommendations contained in this report are made effective.

From my own observation I would say that we have still a long way to go before the public can be persuaded to support some of the recommendations contained in this report. One finds the greatest skepticism toward the question of the inter-relation of mental deficiency and delinquency on the part of people whom one would expect to know better and whose help and influence is needed to bring these reforms about.

Perhaps they are right. There is a great deal in "the wisdom of the vulgar," spoken of by Professor Hutton recently. The instinct of the man on the street is usually sound, and it is a serious matter to interfere with personal liberty. We shall look to the psychiatrist to convince us that he is right, and we have great need of a campaign of publicity to bring the facts already known home to the public.

News Notes

St. John, New Brunswick, has recently completed a most successful drive for "Finding Cases" of Tuberculosis. Four clinics were maintained daily for three days and had to be opened the fourth day. Hundreds of citizens presented themselves, many having to be turned away. The present difficulty is finding suitable treatment facilities for cases.

Hon. John Michael Uhrich, M.D., the newly appointed Minister in charge of the Bureau of Public Health for Saskatchewan, and also holding the portfolio of Provincial Secretary, has practiced medicine in the Province since 1908. Dr. Uhrich is a son of a French Veteran of the 1870 war, and was born in Ontario in 1877, graduating in medicine from the Northwestern University of Chicago in 1902. He has represented Rosthern in the Legislative Assembly since the last general election in 1921.

The Annual Meeting of the Ontario Branch of the Canadian National Council for Combating Venereal Diseases was held in London, May 12th. The following officers were elected:—President, Albert E. S. Smythe, Toronto; Secretary, Miss Gertrude Tate, Toronto; Hon. Treasurer, L. M. Wood, Esq., Toronto.

President A. Blook, of the Canadian Association for the Prevention of Tuberculosis, has resigned from the position of Sheriff at Regina, Sask., and has accepted the appointment of Superintendent and General Manager of the Saskatchewan Sanatorium at Fort Qu'Appelle.

"There is nothing so important to public health as a properly pasteurized milk supply throughout the Province, and particularly in the cities," says Dr. M. M. Seymour, Commissioner of Bureau of Public Health, Saskatchewan.

Every spring I endeavor to have the municipal authorities recognize this and take action to have this condition enforced by law, and I am confident in saying that were the general public aware of the great amount of disease spread by raw milk, they would not hesitate to demand a pure fresh supply.

Most of our cities and towns have enacted a by-law having pasteurization compulsory, and I therefore regret that the governing authorities of our capital city have not seen eye to eye with medical knowledge in this respect, having in 1921 refused to enact similar measures, but I sincerely hope that 1922 will see the passing of this by-law.

The milk pasteurizing plants now operating throughout the Province are now operating under the direct supervision of the Bureau of Public Health, and scientific methods are strictly employed.

Raw milk is what may be termed an intensive disease container, and has in countless instances been proven as the agent of epidemics, particularly of typhoid, scarlet fever and diphtheria.

Unless pasteurization of milk supplies, in particular those of cities, is enforced, there is no barrier in the way of another outbreak of typhoid fever similar to that which occurred last year in our capital city, when 80 cases and 10 deaths in a local institution were traced directly to infected raw milk.

Summer will soon be with us, a season when these outbreaks are most intense, and therefore early action to strengthen our position in this regard is imperative for our health.



The Provincial Board of Health of Ontario

COMMUNICABLE DISEASES REPORTED FOR THE PROVINCE BY LOCAL BOARDS OF HEALTH FOR THE MONTH OF MARCH, 1922.

COMPARATIVE TABLE.

Diseases.	1922		1921	
	Cases	Deaths	Cases	Deaths
Small-pox	113	0	526	4
Scarlet Fever	446	18	436	16
Diphtheria	320	32	447	47
Measles	695	4	238	4
Whooping Cough	61	13	237	19
Typhoid	21	11	30	11
Tuberculosis	172	136	181	134
Infantile-Paralysis .....	.....	.....	.....	6
Cerebro Spinal Meningitis	8	7	.....	5
Influenzal Pneumonia .....	.....	84	.....	42
Primary Pneumonia .....	.....	409	.....	315
	<hr/> 1,836	<hr/> 714	<hr/> 2,095	<hr/> 603

VENEREAL DISEASES REPORTED BY MEDICAL OFFICERS OF HEALTH.

	1922	1921
	Cases	Cases
Syphilis	218	211
Gonorrhoea	252	157
Chancroid	4	10
	<hr/> 474	<hr/> 378

The returns made of Communicable Diseases by local Boards of Health for the month of March show a great reduction in small-pox, diphtheria and whooping cough compared with March, 1921.

Increases are reported in scarlet fever, measles, influenzal pneumonia and primary pneumonia. The total decrease in cases is 259, while the deaths show an increase of 111, due to influenza and pneumonia, as may be seen in the comparative table.

NOTICE TO MEDICAL OFFICERS OF HEALTH IN RESPECT TO MATERNITY BOARDING HOUSES

Medical Officers of Health not already acquainted with the Maternity Boarding House Act, are requested to look up the Act, Chapter 230, R.S.O., 1914, and familiarize themselves therewith, and follow the procedure laid down in the Act.

JOHN W. S. MCCULLOUGH,
Chief Officer of Health.

REGISTRATION OF BIRTHS.

COPY OF CIRCULAR LETTER TO DIVISION REGISTRATORS THROUGHOUT
THE PROVINCE.

Spadina House,
Toronto, May 1, 1922.

DEAR SIR,—

For some time the Department has been endeavouring to improve registration of births in Ontario by making appeals to physicians to issue their "Notices" in all cases.

Notwithstanding these efforts, approximately ten to fifteen per cent. of births are unregistered, and the Department has come to the conclusion that the only plan whereby these notices can be secured is to institute legal proceedings against physicians neglecting this duty.

You are, therefore, herewith instructed to forward to this office, along with your monthly returns, a list of physicians who fail to forward the "Physician's Notice" within 48 hours after the date of the birth, giving specific instances of such neglect with names, dates, etc.

It would be advisable that you notify all physicians—through the press or otherwise—practicing in your municipality that you are so instructed, and that failure to furnish the aforementioned "Notice" will involve prosecution.

Yours truly,

JOHN W. S. McCULLOUGH,
Deputy Registrar-General.

Editorial

ON TO ST. JOHN.

A MESSAGE FROM THE HON. WM. F. ROBERTS, PRESIDENT OF THE CANADIAN PUBLIC HEALTH ASSOCIATION.

Your president has done but very little in the way of writing for the Public Health Press during the last year, and therefore would like to suggest that he has not lost sight of perhaps what is more important, organization work through correspondence, also endeavouring to crystallize plans already made and the institution of newer ones for the future welfare of our Association, which should be one of the most important factors in the conservation of the health and lives of our Canadian people.

There seems to have been a doubt in the minds of some, as to whether this organization had a field of usefulness to serve, intimating, possibly, that the one association, the American Public Health Association, might have succeeded better, inasmuch as this was a special branch of medicine, and that the Canadian public health population was too small for a separate organization. I take it, good arguments were forthcoming in favour of both ideas. But that now is a matter of history. The Canadian Public Health Association is here, and I feel we all sincerely believe, is here to stay.

Already it has performed good service, and there remains yet much to be done. Its future usefulness largely depends on the co-operation, not only of those directly interested, but to medical men and women in general, for we all realize we are rapidly approaching the day when preventive rather than curative medicine must prevail. Therefore it behooves all that they become affiliated with an organization whose aims and objects are along these lines.

It should be our object to make this institution so efficient and popular that it will be felt to be indispensable to our Canadian life.

This year we are meeting in annual convention at Saint John, New Brunswick, "down by the sea." New Brunswick is known, and justly so, as "The Sportsman's Paradise."

For beauty of scenery, our mountains, meadows and valleys, our rivers, lakes and streams, cannot be surpassed. Considering the area of the province and its mileage of roads, I think I can safely say, we have as good highways as can be found in Canada.

St. John is the commercial metropolis, situated at the mouth of the Saint John River, four hundred and fifty miles in length. This river empties into the waters of the Bay of Fundy, an arm of the Atlantic Ocean, by way of the "Reversible Falls," a most unique phenomenon, and through the Saint John Harbour, which is the winter port of Canada.

We feel safe in saying that once you come to Saint John, particularly in the month of June, you will always wish to return. We therefore extend, not only to the public health people of Canada, but to the medical profession and the nursing fraternity, a most hearty invitation to come to the "Real East" this year. Make this "Canadian Public Health Congress"—for it embraces the annual meeting of the Canadian Association for the Prevention of Tuberculosis as well as that of the Canadian National Council for Combating Venereal Diseases—notable throughout the public health world, from the standpoint of attendance and interest.

Notes on Current Literature

From the Health Information Service, Canadian Red Cross Society

Health in Industry.

Dr. J. G. Cunningham, Director of Industrial Hygiene, Provincial Board of Health, Ontario, shows the relationship of health in industry to the health of the community, and describes a system of industrial medical service in use by small plants that cannot afford the undivided services of a physician. ("The Public Health Journal," Toronto, March, 1922, page 114.)

Industrial Medical Service.

The introduction of a part-time medical service in a small industrial plant with 115 employees resulted in a reduction in the daily absence rate from 6% to 2.7%, and lowered the labour turnover from 25% to 14.7%. The cost of this service was \$14.40 an employee per annum. ("The Journal of Industrial Hygiene, April, 1922, page 363.)

Physical Education.

A course of study in physical education and the method of application to elementary public schools. ("American Physical Education Review," April, 1922, page 160.)

Prevention of Diphtheria.

Dr. Wm. H. Park, of the New York City Department of Health, gives a complete review of the method and results of active immunization with toxin-antitoxin against diphtheria. ("Monthly Bulletin of the New York City Department of Health," February, 1922, page 25.)

Rural Child Hygiene.

The problem of the rural child and its solution as seen by the Director of Public Health Nursing of the University of Michigan. ("Public Health," Michigan Department of Health, March, 1922, page 509.)

The Recent Influenza Epidemic.

A study of mortality from influenza during the past few months shows conditions this year to be those usual for winter respiratory diseases and not a recrudescence of the influenza epidemic of three years ago. ("Statistical Bulletin," Metropolitan Life Insurance Company, March, 1922, page 1.)

Provisional Programme Health Congress

St. John, N.B.

Canadian Association for the Prevention of Tuberculosis—President: Sheriff Cook. Secretary: Dr. R. E. Wodehouse, Bank Street Chambers, Ottawa, Ont.

Canadian Public Health Association—President: Hon. Dr. Roberts. Secretary: Dr. R. R. McClenahan, 205 Bloor Street West, Toronto, Ont.

Canadian National Council for Combating Venereal Diseases—President: Hon. Mr. Justice Riddell. Secretary: Dr. Gordon Bates, 154 Bay Street, Toronto, Ont.

June 6th, 7th, 8th, 9th.

Tuesday, June Sixth.

9-11.30 a.m.—Registration.

11.30-12.30 noon—Moving Pictures—(a) How Life Begins.

(b) Industrial Health Film.

2-4 p.m.—Social and Mental Hygiene Laboratory Sections, C. P. H. A.
Canadian National Council for Combating Venereal Diseases

(Joint Meeting.) Chairman: Mr. W. B. Snowball, Chatham, N.B.

(1) "The Nature of the Substance Responsible for Complement Fixation in Tuberculosis."—Dr. R. W. Hodge, Toronto.

(2) Social Service follow-up with references to Venereal Diseases—Dr. Gordon Bates, Toronto.

(3) Work of Dominion Department of Health in Venereal Diseases—Dr. J. J. Heagerty, Ottawa.

Discussion—Dr. A. H. Desloges, Montreal.

(4) The Place of the Sanitary Engineer in Public Health—Mr. F. A. Dallyn, Toronto.

(5) Laboratory Paper No. 6.—Interpretation of Wassermann Test—Dr. H. K. Detweiler, Toronto.

Discussion arranged later.

2-4 p.m.—Canadian Association for the Prevention of Tuberculosis and Child Welfare Section, C. P. H. A. (Joint Meeting).

Chairman—Sheriff Cook.

(1) Tuberculosis in School Children—Dr. Ferguson.

Discussion—Dr. Craig.

(2) Subject to be announced—Dr. Wm. Hart, Ottawa.

(3) Breast Feeding—Dr. George Smith, Toronto.

Discussion—Dr. W. J. Bell.

(4) Municipal Hospitals for Treatment of Tuberculosis—Dr. M. M. Seymour, Regina.

Discussion—Dr. Laidlaw, Edmonton.

8 p.m.—Chairman—His Hon. Lieutenant-Governor Wm. Pugsley, Hon. President, C. P. H. A.

Speakers—Dr. Chas. E. North, New York City.

Hon. W. F. Roberts, President's Annual Address.

Wednesday, June Seventh.

- 9.30-12.30—Child Welfare Clinics. (Location announced later.)
 Conducted by Dr. George Smith, Toronto.
 Dr. W. J. Bell, Toronto.
 Dr. W. E. Rowley, St. John, N.B.
- 9.30-12.30—Venereal Disease Clinics. (Location announced later.)
 Conducted by Dr. Gordon Bates, Toronto.
 Dr. J. A. McCarthy, St. John, N.B.
- 9-10 a.m.—Executive Meeting, Canadian Association for the Prevention of Tuberculosis.
- 10-11 a.m.—Executive Meeting, Canadian Public Health Association.
- 2-4 p.m.—Women's Meeting—Sheriff Cook, President, Canadian Association for Prevention of Tuberculosis.
 A motion picture showing women's work in fight against Tuberculosis in Saskatchewan.
 A number of other interesting features are being arranged by a strong committee of women. Announcement later.
- 2-4 p.m.—Open Meeting. Canadian Public Health Association and Canadian Association for Prevention of Tuberculosis.
 Chairman—Hon. Dr. Roberts.
- (1) Non-tuberculous Lung Conditions. (Lantern slides.)
 Dr. Pritchard, Battle Creek, Michigan.
 Discussion—Dr. K. R. Byers.
 - (2) Genito-Urinary Tuberculosis—Dr. McKenzie, Montreal.
 - (3) Thoracoplasty—Dr. W. G. Archibald, Montreal.
 Discussion—Dr. Miller.
 - (4) Simplified Diagnosis of Early Tuberculosis—Dr. Bray, Saranac.
 Discussion—Dr. Hart.
- LABORATORY SECTION—
- (1) Subject to be announced later—Dr. Harris, Dept. of Health, Ottawa.
 - (2) The Intracutaneous Method as Applied to Standardization of Diphtheria Antitoxin—Dr. D. T. Fraser, Connaught Laboratory, Toronto.
 - (3) A New Method of Carrying Out the Precipitin Test—Prof. James Miller, Queen's University, Kingston.
 - (4) Agglutination Phenomenon with Diphtheria Antitoxin—Mr. P. J. Moloney, University of Toronto.
 - (5) Morphological Changes in Bacteria Induced by Varying the Hydrogen Ion Concentration of the Media—Prof. G. B. Reed, Queen's University, Kingston.
 - (6) The Public Health Laboratory and the Diagnosis of Small-pox—Dr. R. D. Defries, Connaught Laboratory, Toronto.
- 4.30-10 p.m.—Sight-seeing trips and social evening.

Thursday, June Eighth.

- 9.30-12.30—Tuberculosis Clinic. (Site announced later.)
 Clinicians—Dr. Pritchard, Battle Creek, Mich—X-Ray and Tuberculosis.
 Dr. Bray, Saranac—Physical Examination.
 Dr. Archibald, Montreal—Intestinal Tuberculosis.
- 9 a.m.—Annual Meeting—Canadian National Council for Combating Venereal Diseases.
- 2-4 p.m.—Child Welfare Section, C. P. H. A.
 Chairman—Dr. W. J. Bell.
- (1) Prevention of Tuberculosis in Pre-School Age—Dr. Holbrook, Hamilton.
 - (2) Child Welfare in Canada—Dr. Helen MacMurchy.
 Discussion—Dr. Young.
 - (3) The Practitioner in Child Welfare—Dr. W. J. Bell.
 Discussion—Dr. George Smith.
 - (4) Child Welfare Film.

2-4 p.m.—Venereal Disease and Mental Hygiene Sections, C. P. H. A.
Chairman—Dr. A. H. Desloges.

- (1) Training of Sub-Normal Children—Dr. Bryson, Halifax.
- (2) Mental Survey of School Children, Toronto—Dr. Eric Clark, Toronto.
- (3) Mental Hygiene Surveys—Dr. C. K. Clarke or Dr. C. M. Hincks.
(Programme of these three papers to be arranged by Dr. Hincks or Dr. Beattie.)
- (4) Some Results of the Campaign Against Venereal Diseases—Dr. N. Fournier, Montreal.
- (5) Venereal Disease paper. (Title to be announced later.) Dr. G. Ahearn, Quebec.

4.30 p.m.—Reception.

8.30 p.m.—General Meeting.

Chairman—Hon. Dr. Roberts.

- (1) The Role of the Official and the Voluntary Health Agency—Dr. John Amyot, Deputy Minister of Health.
- (2) Tuberculosis in France—Dr. Bernard Wyatt.
- (3) The Role Played by Pure Milk in Public Health—Dr. C. J. O. Hastings, Toronto.

Friday, June Ninth.

9-11 a.m.—Round Table Discussion on Co-operation of Voluntary Agencies.
Chairman—Hon. Dr. Roberts.

Representation from—

Dominion Department of Health.
Canadian Association for the Prevention of Tuberculosis.
Canadian National Mental Hygiene Association.
Sections of Canadian Public Health Association.
Canadian Red Cross Society.

11 a.m.—4 p.m.—Boat trip around harbour and to Partridge Island, with visit to Quarantine Station.

LIST OF HOTELS WITH PRICES.

Royal Hotel—\$3.00 per day and up. European plan.

Victoria Hotel—\$3.50 per day. American plan.

Dufferin Hotel—\$4.00 and \$4.50 per day. American plan.

Clifton House—\$3.00 per day. American plan.

Sign o' the Lantern—\$2.00 per day (rooms) breakfast only.

Make reservation with Dr. Wm. Warwick, District Medical Health Officer, St. John; or at the hotels direct.

